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AWT Memo

Date: April 2007 (Supersedes October 4, 2005)
To: AWT Membership
From: AWT Legislative/Regulatory Committee
Re: Clean Water Act 316b- Cooling Water Intake Structure Regulations

Regulation of cooling water intake structures will affect many facilities across the country. AWT members who call on these facilities will want to be aware of the new rules. More than 44,000 industrial facilities use water taken from lakes, rivers, estuaries or oceans for cooling purposes and will potentially be affected by these rules.

Background

The US Environmental Protection Agency, under 316b of the Clean Water Act, regulates the locations, design, construction, and capacity of cooling water intake structures. These structures must be built with the best technology available for minimizing adverse environmental impact.

Water intake structures cause adverse environmental impact by pulling large numbers of fish and shellfish into a plant's cooling system. There the organisms may be killed or injured by heat, physical stress or chemicals used in the cooling system. Likewise, organisms may be killed or injured when they are trapped against screens at the intake structures. The 316b rule states that both entrainment mortality and impingement mortality must be reduced. Entrainment mortality means that smaller aquatic organisms including fish eggs are drawn into the cooling system and killed or injured. Impingement mortality means larger aquatic organisms such as fish are pinned against screens and killed or injured.

The EPA has enacted the regulations in three phases.

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| Phase I (Finalized December 2001): | New Facilities |
| Phase II (Finalized February 2004): | Existing electric generating stations drawing more than 50 million gallons per day and using more than 25% for cooling purposes are regulated. |
| Phase III (Finalized June 2006): | New offshore oil and gas extraction facilities that have a design intake flow threshold of greater than 2 million gallons per day (MGD) and that withdraw at least 25 percent of the water exclusively for cooling purposes. |

The EPA made the decision that the uniform national standards are not the most effective way to address cooling water intake structures at existing facilities that were not covered under earlier Phase II rules.

Facilities which do not meet the threshold of either Phase I or Phase II should be aware that the permitting authorities will still have the authority under the 316b to regulate on a “case by case” basis any facility. This authority is based on the “best professional judgment” of the permit writer who concludes that cooling intake structures are creating an adverse environmental impact. The cooling intake restrictions would be part of the existing NPDES permit for the facility.

Impact

Although the EPA did not set a uniform national standard for all facilities, 316b can still be used to regulate cooling water intakes. If a facility is regulated under 316b rules their cooling water costs will increase. Some plants may elect to use alternate technologies such as open recirculation systems to reduce cooling water volumes and the environmental impact. Other facilities will have to redesign their water intake structures.

For more information about the 316b regulations visit the EPA website at <http://www.epa.gov/waterscience/316b/basic.htm>.

It is important to note how the 316b regulations could impact our clients who now use or are considering the use of water from lakes, rivers, estuaries, or oceans for cooling in their facilities.

Very truly yours,

AWT Legislative and Regulatory Committee.